

REMARKS

Reconsideration for allowance of Claims 1-16 and 18-29 is requested for the reasons set forth herein. Claims 1-16 and 18-35 were pending in this Application. Claims 30-35 have been canceled. Thus, Claims 1-16 and 18-29 are now pending in this Application. No claims have been amended or added.

Priority

In response to the Office's instruction at page 2 of the Office Action mailed June 12, 2007 ("the Office Action"), paragraph [00001] of the Specification under the heading "Related Applications" has been amended to recite the current status of the parent application, namely that it has been issued as U.S. Patent No. 6,676,745.

Information Disclosure Statement

Applicant notes the Office's advisement that the Information Disclosure Statement ("IDS") filed January 13, 2004, does not comply with 37 C.F.R. 1.98(a)(2) and has been placed in the file but the foreign patent documents had not been provided and therefore were not reviewed. Applicant apologizes for the inadvertent omission and submits herewith copies of the three foreign patent documents identified in the IDS filed January 13, 2004.

Rejection for Obviousness-Type Double Patenting (ODP)

Claims 1, 5, 9-11, 14, 16, 18-24, 30, 31, and 34 were rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over all claims of U.S. Pat. No. 6,777,103 ("the '103 Patent") in view of *Schmidt* (CA 1,177,205) ("Schmidt"). (Office Action, p. 3). Alternatively, Claims 1, 9-11, 16, 18-24, 30, 31, and 34 were rejected over U.S.

No. 6,872,246 (“the ‘246 Patent”) again in view of *Schmidt*. (Office Action, p. 5). This rejection is respectfully traversed.

A. Rejection of Claims 1, 5, 9-11, 14, 16, 18-24, 30, 31, and 34 over all claims of the ‘103 Patent in view of *Schmidt*

To establish a *prima facie* case of nonstatutory-type (e.g. obviousness-type) double patenting, the Office must identify the inventions recited in the claims under consideration, and in the earlier-issued claims. Further, the Office must establish that any variation between the inventions recited in the claims under consideration and the earlier-issued claims would have been obvious to a person of ordinary skill in the art. Additionally, the Examiner’s showing of obviousness must follow the analysis used to establish a *prima facie* case of obviousness. See *In re Longi*, 759 F.2d 887, 225 USPQ 645, 651 (Fed. Cir. 1985). The Office asserts that the claims of the ‘103 Patent teach all of the elements of pending independent Claim 1 with the exception that the claims of the ‘103 Patent do not recite the limitation “that the treatment is performed in water or solvent to bond to the fibers and make the fibers hydrophobic.” (Office Action at page 3). The Office relies on the reference of Schmidt and asserts that it “teaches treatment of fibers in water or a solvent (page 2, lines 3-15 and elsewhere), which would bond with hydrophilic sites in the cellulose and make the surface hydrophobic (page 2, line 3).” (Office Action at page 3).

Initially, it is not clear that the ‘103 patent claims a sizing agent that “comprises a hydrophilic functional group and a hydrophobic functional group,” nor that the hydrophilic group “chemically bonds to at least some of the hydrophobic sites on inner and outer surfaces of the fibers.” Further, Applicant respectfully submits that it is not at all clear that Schmidt teaches or suggests that its chemical treatment bonds to hydrophilic sites of the cellulose fibers. As a result, not all of the limitations of Claim 1 are taught or suggested and a *prima facie* case of

obviousness has not been made under M.P.E.P. § 2143; thus, a *prima facie* case of obviousness type double patenting has also not been made. Claims 5, 9-11, 14, 16, and 18-24 remain dependent directly or indirectly on Claim 1 and are believed to be patentable at least for the reasons set forth above in support of the patentability of independent Claim 1.

The Office asserts that the claims of the '103 Patent teach all of the elements of pending independent Claim 30 with the exception that the claims of the '103 Patent do not recite the limitation requiring treatment of the fibers in water or organic solvent, and for that teaching relies on the reference of Schmidt. While Applicant disagrees with the Office's position, for other reasons Claim 30 has been canceled and Applicant believes that this rejection is now moot and requests its withdrawal.

B. Rejection of Claims 1, 9-11, 16, 18-24, 30, and 31 over all claims of the '246 Patent in view of Schmidt.

The Office asserts that the claims of the '246 Patent teach all of the elements of pending independent Claim 1 with the exception that the claims of the '246 Patent do not recite the limitation "that the treatment is performed in water or solvent to bond to the fibers and make the fibers hydrophobic." (Office Action at page 5). The Office relies on the reference of Schmidt and asserts that it "teaches treatment of fibers in water or a solvent (page 2, lines 3-15 and elsewhere), which would bond with hydrophilic sites in the cellulose and make the surface hydrophobic (page 2, line 3)." (Office Action at page 3).

The Office interprets the sizing agent of the instant claims with the loading agent of the independent claim of the '246 Patent. The specification of the '246 Patent provides examples of loading agents and notes that the loading of the fibers causes the insoluble substances to occupy pores spaces within the voids of the fibers. ('246 Patent, 9:20-27). Applicant respectfully

submits that it is not clear that the '246 Patent discloses that the loading agent "comprises a hydrophilic functional group and a hydrophobic functional group, wherein the hydrophilic functional group chemically bonds to at least some of the hydrophilic sites on inner and outer surfaces of the fibers" as recited in pending Claim 1. As a result, not all of the limitations of Claim 1 are taught or suggested and a *prima facie* case of obviousness has not been made under M.P.E.P. § 2143; thus, a *prima facie* case of obviousness type double patenting has also not been made. Claims 9-11, 16, and 18-24 remain dependent directly or indirectly on Claim 1 and are believed to be patentable at least for the reasons set forth above in support of the patentability of independent Claim 1.

The Office asserts that the claims of the '246 Patent teach all of the elements of pending independent Claim 30 with the exception that the claims of the '246 Patent do not recite treatment in solution and relies on the reference of Schmidt. While Applicant disagrees with the Office's position, for other reasons, Claim 30 has been canceled and Applicant believes that this rejection is now moot and requests its withdrawal.

Rejections under 35 U.S.C. § 103(a)

Claims 1-7, 10, 11, 15, 16, 18-27, and 29-35 were rejected over James Hardie PCT published application WO 97/08111 ("Naji") in view of Schmidt (CA 1,177,205). (Office Action, p. 7). Claims 1 and 30 are independent. Claims 2-7, 10, 11, 15, 16, 18-27, and 29 depend either directly or indirectly from independent Claim 1. Claims 31-35 depend from independent Claim 30.

Separate rejections to the dependent claims have also been made. Claims 8 and 9 are rejected over Naji in view of Schmidt and further in view of U.S. Pat. No. 4,225,383

(McReynolds). (Office Action, p. 11). Claims 12 and 13 are rejected over Naji in view of Schmidt and further in view of U.S. Pat. No. 3,400,181 (Battista) and WO 84/04765 (Holbek). (Office Action, p. 12). Claim 14 is rejected over Naji in view of Schmidt and further in view of U.S. Pat. No. 1,914,163 (Randall). (Office Action, p. 13). Claim 28 is rejected over Naji in view of Schmidt and further in view of WO 99/35330 (Hoskins). (Office Action, p. 13).

Applicant recognizes with appreciation the Office's acknowledgment that "Naji is silent to treating at least a portion of the cellulose fibers with a sizing agent in the presence of water or an organic solvent, wherein the sizing agent comprises a hydrophilic functional group and a hydrophobic functional group, wherein the hydrophilic group chemically bonds to at least some of the hydrophilic sites on inner and outer surfaces of the fibers to form sized fibers, wherein the sizing agent substantially blocks the hydrophilic sites, thereby reducing the fiber's affinity toward water." (Office Action, p. 7). For the teaching of these limitations of Claim 1, the Office relies on the reference of Schmidt. The Office states that Schmidt "teaches treating the cellulose fibers with a sizing agent of alkylsilanol (page 2, line 28), the alkylsilanol providing a hydrophobic surface (page 1, lines 21-24)." The Office further states that: "Because the treatment of Schmidt appears to bond with the cellulose and present a hydrophobic surface, it is submitted that it has the claimed hydrophobic and hydrophilic groups." (Office Action, p. 8).

Schmidt states at page 1, lines 21-24 "[t]here therefore exists the task of finding a hydrophobising medium for cellulose-containing material, which exhibits its maximum effect in low concentrations and which is employed with a trouble free solvent." Thus, this statement is the object of the invention allegedly disclosed by Schmidt. In the following paragraph, Schmidt states how its allegedly disclosed invention satisfies the object of the invention:

[i]n fulfillment of this object, an impregnation medium for rendering cellulose-containing materials hydrophobic has been found which is characterized as aqueous or aqueous/alcoholic solution of a mixture of at least one alkali metal aluminate and at least one alkylsilanol (alkyl = ethyl, propyl, or n-butyl). This *mixture* already shows a hydrophobizing effect as 0.2% solution in water. Surprisingly, however, *only the mixture* of these two components possesses an impregnating effect, whereas both the aqueous silanol solution and also an aluminate solution *alone show no impregnating effect.*"

(Schmidt, 1:25-33 to 2:2; emphasis added). Thus, Schmidt teaches that only the *mixture* of alkylsilanol and alkali metal aluminate create an impregnating hydrophobizing medium. Further, Schmidt *expressly* teaches that *neither* compound *alone* has a hydrophobizing effect. Thus, Applicant respectfully submits that Schmidt teaches away from the claimed invention.

Further, the Office appears to confuse the distinction between the *mixture* of the alkylsilanol and alkali metal aluminate having a hydrophobizing effect, and whether one of the compounds has hydrophobic and hydrophilic groups, as recited in independent Claim 1. In the Office's statement "[b]ecause the treatment of Schmidt appears to bond with the cellulose and present a hydrophobic surface, it is submitted that it has the claimed hydrophobic and hydrophilic groups," it appears the Office is referring to the mixture ("the treatment") then attributing the assumption that "it" (the treatment) has both hydrophilic and hydrophobic groups. Applicant respectfully submits that this assumption is contrary to the teaching of Schmidt, which was discussed above.

Because the combination of Naji and Schmidt teaches away from the claimed invention and fails to teach all its claim limitations, Applicant respectfully submits that for at least these reasons the rejection of independent Claim 1 should be withdrawn. Because Claims 2-7, 10, 11, 15, 16, 18-27, and 29 depend either directly or indirectly from Claim 1, it is believed that the rejection of these claims should also be withdrawn.

Because the separate rejections to dependent Claims 8, 9, 12, 13, 14, and 28 that depend from Claim 1 rely on the combination of Najj and Schmidt, with the additional reliance on the tertiary and/or quaternary references of McReynolds (Claims 8 and 9), Battista and Holbeck (Claims 12 and 13) and Randall (Claim 14), for alleged teaching of additional limitations recited by the dependent claims, it is respectfully requested that the rejections of these claims also be withdrawn for at least the reasons discussed above for Claim 1. In other words, Applicant respectfully submits that none of the additional references overcomes the deficiencies in the teachings of Najj and Schmidt to support the rejections of any of Claims 8, 9, 12, 13, 14, and 28.

Regarding the rejection of Claims 30-35, these claims have been canceled and Applicant respectfully submits that this rejection is now moot.

CONCLUSION

Applicant respectfully submits that the Application is in condition for allowance, and Applicant earnestly seeks such allowance of Claims 1-16 and 18-29. Should the Examiner have any questions, comments, or suggestions in furtherance of the prosecution of this Application, the Examiner is urged to contact the undersigned at 214.999.4712.

To the extent that any further fees are required during the pendency of this Application, including petition fees, the Commissioner is hereby authorized to charge payment of any additional fees, including any fees under 37 C.F.R. § 1.16 or 37 C.F.R. § 1.17, to Deposit Account No. 07-0153 of Gardere Wynne Sewell LLP and reference Attorney Docket No. 129843.1030. In the event that any additional time is needed for this filing, or any additional time in excess of that requested in a petition for an extension of time, please consider this a petition for an extension of time for any needed extension of time pursuant to 37 C.F.R. § 1.136 or any other section or provision of Title 37. Applicant respectfully requests that the Commissioner grant any such petition and authorize the Commissioner to charge the Deposit Account referenced above. Please credit any overpayments to this same Deposit Account.

Please direct all correspondence to the practitioner listed below at Customer No. 60148.

Respectfully submitted,



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